BEFORE THE

Federal Communications Commission

WASHINGTON, D. C. 20554

In the Matter of	)	
	)	
Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use	)	ET Docket No. 94-32

To: The Commission

COMMENTS OF APCO

The Association of Public-Safety Communications Officials-International, Inc. ("APCO"), hereby submits the following comments in response to the Commission's Notice of Inquiry in the above-referenced proceeding, FCC 94-97, released May 4, 1994.

APCO is the nation's oldest and largest public safety communications organization, with over 10,000 members involved in the management and operation of public safety communications facilities. APCO is the certified frequency coordinator for the FCC's Part 90 Police, Local Government, and Public Safety Radio Services, and is also a regular participant in proceedings before the FCC, NTIA, and Congress.

The Notice requests comments regarding potential applications of the first 50 MHz of spectrum to be released by the Federal Government pursuant to Title VI of the Omnibus Budget Reconciliation Act of 1993. The Commission

also seeks comments regarding a Petition for Rulemaking filed by the Coalition of Private Users of Emerging Multimedia Technologies ("COPE"), requesting an allocation of 75 MHz for private land mobile use of new telecommunications technologies, Notice at n. 21.

I. The COPE Petition.

APCO is an active member of COPE and strongly supports the Petition for Rulemaking.[1/] Public safety agencies are facing severe shortages of radio spectrum for both current and future public safety communications systems. Many agencies, especially in and near major metropolitan areas, need additional radio frequencies now because of spectrum congestion that already threatens the efficiency and speed of service of their current emergency communications operations. Therefore, if public safety is to implement new communications technologies, additional radio spectrum must be made available to State and local governments.

As discussed in the COPE Petition, spectrum will be needed for new communications tools critical to law enforcement, fire suppression, disaster relief, emergency medical services and other vital public safety services.[2/] Examples of these new technologies include the ability to

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[1/] COPE is also filing separate comments in response to the Notice of Inquiry.

[2/] COPE Petition at pp. 10-13.

transmit fingerprints, mugshots, building diagrams, full motion video, medical data, and other high resolution images to and from police, fire, emergency medical and other public safety personnel in the field.[3/]

Public safety agencies will need separate spectrum allocations to implement these new technologies. Commercial radio services, such as PCS, will not be adequate or appropriate substitutes.[4/] Public safety communications requires far higher levels of reliability, priority access, and interference protection than that offered by consumer-oriented, commercial services. Commercial services also will not provide the universal coverage and specialized services that public safety agencies require.

Nor is obtaining their own PCS licenses a realistic option for public safety entities. PCS licenses will be sold to the highest bidder and, therefore, will be far beyond the financial means of State and local government agencies.[5/] Congress recognized this when it excluded

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[3/] APCO will be submitting further information regarding these and other technologies on July 29, 1994, as part of its response to a letter from Private Radio Bureau Chief Ralph Haller, dated April 5, 1994, requesting APCO's assistance with regard to the Commission's statutorily mandated study of current and future public safety spectrum needs.

[4/] See COPE Petition at 15-21.

[5/] Leasing PCS spectrum for a dedicated communications system is equally unrealistic. Whether "buying" the spectrum through an auction or leasing it, public safety agencies would still be paying exorbitant fees for the mere right to use certain radio frequencies, a concept that is rightfully alien

(continued...)

public safety frequencies from the competitive bidding process. Unfortunately, the gross inequity of requiring public safety agencies to bid against corporate giants for radio spectrum appears to have eluded the Commission's considerations in its most recent PCS decision. There, the Commission suggests that entities seeking PCS frequencies for internal private use can simply bid for their own PCS licenses. Memorandum Opinion and Order in Gen. Docket 90-314, FCC 94-144 (released June 13, 1994) at ¶90. Perhaps that is an option for business entities, it clearly is not for cash-strapped State and local governments.

Nor will future public safety communications needs be satisfied within current public safety land mobile frequency allocations. Those frequencies are already over-burdened and, even with the benefits of spectrum refarming, are unlikely to keep pace with the demand for existing communications services, let alone the new communications technologies on the horizon (many of which will require wider, not narrower channels).

Therefore, APCO urges the Commission to allocate appropriate radio spectrum for public safety agencies to implement new telecommunications technologies. Should the Commission grant the COPE Petition and allocate spectrum for an Advanced Private Land Mobile Communications Service, as

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[3/] (...continued)
to the Communications Act and the Commission's policies with regard to State and local governmental communications systems.

requested therein, a significant portion of the spectrum in that new service must be reserved for the exclusive use of public safety agencies. Otherwise, business and industrial entities will monopolize the reallocated spectrum, to the exclusion of public safety agencies hampered by cumbersome governmental budgets and approval processes.

II. The First 50 MHz.

Title VI of the Omnibus Budget Reconciliation Act of 1993 requires the Federal Government to release 200 MHz of radio spectrum, 50 MHz of which must be made available for reallocation by February 10, 1995. The National Telecommunications and Information Administration (NTIA) has proposed that the first 50 MHz to be released come from the 2390-2400 MHz, 2402-2417 MHz, and 4660-4685 MHz bands.[6/] Anticipating that reallocation, the Commission now seeks comments as to possible uses of the first 50 MHz and, in particular, "the utility for public safety communications systems of the spectrum identified for immediate reallocation." Notice at 8.

The 2390-2400/2402-2417 MHz bands would be particularly appropriate for the advanced private mobile communications technologies described in the COPE Petition. The bands can

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[6/] Preliminary Spectrum Reallocation Report, U.S. Department of Commerce, NTIA Special Publication 94-27, February, 1994 ("NTIA Preliminary Report"). APCO submitted comments in response to the NTIA Preliminary Report on May 11, 1994.

be used for cost-efficient mobile communications technology, and may include sufficient spectrum to accommodate transmission of broad-band, high-resolution images. These frequencies are also in the same frequency range as other Federal spectrum bands identified for future reallocation in the NTIA Preliminary Report.

Unfortunately, the 2390-2400/2402-2417 MHz bands are encumbered by widespread use of microwave ovens and other ISM devices operating in the same frequency range.[7/] This may prevent many mobile applications in and near residential areas. However, there may be methods to avoid microwave oven interference, either through geographic limitations, power levels, or advanced technical approaches such as spread spectrum technology (which is already used in the band pursuant to Part 15). APCO urges the Commission and the manufacturing community to explore these and other techniques that might expand possible uses of the 2.4 GHz bands. This spectrum is too valuable to be left for the near exclusive use of microwave ovens.[8/]

APCO also suggests that the Commission explore the possibility of allocating the band for private operational fixed service (POFS) microwave operations at remote, high-

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[7/] See NTIA Preliminary Report (Appendix E).

[8/] For long-range planning, the Commission may also want impose additional technical restrictions on microwave oven signal leakage to expand the potential for future use of the 2.4 GHz bands.

elevation sites. While urban area POFS microwave use may be difficult due to aggregate microwave oven interference, the band could be used for POFS microwave at isolated mountaintop transmitter/receive sites with high elevation paths over sparsely populated areas.

Public safety agencies need additional fixed microwave frequencies, especially with the reallocation of the 2 GHz microwave bands for PCS and the prospect of forced dislocation of existing public safety users of those bands.[2/] The 2.4 GHz bands could alleviate some of those microwave frequency shortages, at least in isolated parts of the country. Fixed microwave operation in remote areas could also co-exist with other potential urban uses of the band.

CONCLUSION

APCO strongly supports the COPE Petition and urges the Commission to allocate spectrum for public safety. The first 50 MHz identified by NTIA for reallocation (at least the portion below 3 GHz) has the potential to provide a small portion of the spectrum needed for new public safety communications technologies, assuming that methods are developed to alleviate problems posed by continuing microwave oven use of the 2.4 GHz bands.

[2/] See ET Docket 92-9 and Gen. Docket 90-314.

In any event, the Commission must find additional spectrum for public safety communications, either from frequencies still to be reallocated by the Federal Government or from spectrum already under the FCC's jurisdiction. Spectrum is needed for both current public safety communications applications and for new technologies that will greatly enhance the ability of State and local governments to protect the safety of life and property.

Respectfully submitted,

ASSOCIATED PUBLIC-SAFETY COMMUNICATIONS OFFICERS, INC.

By: James R. Rand
James R. Rand, Executive Director

Of Counsel:

John D. Lane
Robert M. Gurss
WILKES, ARTIS, HEDRICK & LANE,
Chartered
1666 K Street, N.W.
Suite 1100
Washington, D.C. 20006
(202) 457-7800

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